

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-14. (canceled)

15. (currently amended) A cutting balloon catheter, comprising:
an elongate catheter shaft;

a balloon coupled to the shaft, the balloon having a first fully inflated configuration and a second non-inflated configuration, wherein the balloon has a plurality of substantially smooth wings formed therein when in the second non-inflated configuration;

a metallic cutting blade for severing or breaking up a lesion ~~affixed~~ adhesively bonded to the balloon throughout the entire use of the cutting balloon catheter, the cutting blade including means for cutting having two intersecting planes which form a cutting edge, including means for gripping thereon, having a longitudinal axis, and having a cross-sectional shape that is substantially triangular in a plane transverse to the longitudinal axis;

wherein the means for cutting and means for gripping are defined by a series of undulations on the cutting blade in the first fully inflated configuration; and

wherein the undulations curve from side-to-side relative to the longitudinal axis in the first fully inflated configuration.

16-25. (canceled)

26. (new) The cutting balloon catheter of claim 15, wherein the wings comprise a plurality of alternating inward and outward radial deflections in the balloon.

27. (new) The cutting balloon catheter of claim 15, wherein the wings are evenly spaced circumferentially around the balloon.

28. (new) The cutting balloon catheter of claim 15, wherein the balloon comprises four wings evenly spaced circumferentially around the balloon.

29. (new) The cutting balloon catheter of claim 15, further comprising a plurality of additional metallic cutting blades adhesively bonded to the balloon and spaced circumferentially between respective pairs of adjacent wings.

30. (new) The cutting balloon catheter of claim 29, wherein the metallic cutting blade and the plurality of additional metallic cutting blades are positioned at an inward-most position of respective pairs of adjacent wings.

31. (new) The cutting balloon catheter of claim 29, wherein the wings fold over and cover the metallic cutting blade and the plurality of additional metallic cutting blades when the balloon is in the second non-inflated configuration.

32. (new) The cutting balloon catheter of claim 15, wherein the cutting blade includes at least one fully textured surface.

33. (new) The cutting balloon catheter of claim 15, wherein the cutting blade includes at least one partially textured surface.

34. (new) The cutting balloon catheter of claim 15, wherein the cutting blade includes at least one surface having a series of bumps or projections.